0590-0420 Page 1 of 7

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/023,929

DATE: 02/10/2002

TIME: 14:53:36

Input Set : N:\Crf3\RULE60\10023929.txt
Output Set: N:\CRF3\02102002\J023929.raw

SEQUENCE LISTING

5 (1) GENERAL INFORMATION: (i) APPLICANT: Hillman, Jennifer L. Goli, Surya K. (ii) TITLE OF INVENTION: NOVEL HUMAN MLS3 PROTEIN C--> 10 13 (iii) NUMBER OF SEQUENCES: 6 15 (iv) CORRESPONDENCE ADDRESS: 16 (A) ADDRESSEE: Incyte Pharmaceuticals, Inc. 17 (B) STREET: 3174 Porter Drive 18 (C) CITY: Palo Alto 19 (D) STATE: CA ENTERED 20 (E) COUNTRY: USA 21 (F) ZIP: 94304 23 (V) COMPUTER READABLE FORM: (A) MEDIUM TYPE: Diskette 24 25 (B) COMPUTER: IBM Compatible 26 (C) OPERATING SYSTEM: DOS (D) SOFTWARE: FastSEQ for Windows Version 2.0 27 34 (vi) CURRENT APPLICATION DATA: (A) APPLICATION NUMBER: US/10/023,929 C--> 35 C--> 36 (B) FILING DATE: 17-Dec-2001 37 (C) CLASSIFICATION: 40 (vii) PRIOR APPLICATION DATA: 41 (A) APPLICATION NUMBER: 08/805,965 42 (B) FILING DATE: 44 (viii) ATTORNEY/AGENT INFORMATION: 45 (A) NAME: Billings, Lucy J. 46 (B) REGISTRATION NUMBER: 36,749 47 (C) REFERENCE/DOCKET NUMBER: PF-0223 US 49 (ix) TELECOMMUNICATION INFORMATION: 50 (A) TELEPHONE: 415-855-0555 51 (B) TELEFAX: 415-845-4166 52 (C) TELEX: 55 (2) INFORMATION FOR SEQ ID NO: 1: (i) SEQUENCE CHARACTERISTICS: 57 58 (A) LENGTH: 262 amino acids

(B) TYPE: amino acid

(vii) IMMEDIATE SOURCE:

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(A) LIBRARY: BRAITUT02

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

(B) CLONE: 762280

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FEB 2.1 2002
TECH CENTER 1600/2900

59

60

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64 65

67

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                (B) TYPE: nucleic acid
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                (C) STRANDEDNESS: single
                (D) TOPOLOGY: linear
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                (B) CLONE: 762280
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134																	
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													AATCTCCTGG				
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138	CCCTCACCTT		CTT	TCCCATCCTA		I'A C	CTCCTGCCAT		I GC	GCATTGAAGG			GTCAATGCAT			GGGTG.	
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140	40 GA 42 (2) INFORMATION FOR SEQ ID NO: 3:												1322				
144		(i)		UENC													
145) LEI					acid	s							
146																	
147	,																
148	(,																
150																	
151		•						n k									
151 152		·	(A) LII	BRAR	Y: G	enBaı	nk									
			(A (B) LIE	BRAR ONE :	Y: G	enBai 6392		EO I1	ои с	: 3:						
152 154		(xi)	(A (B SEQ) LIE) CLO JENCE	BRARI ONE: E DES	Y: G 106 SCRII	enBai 6392 PTIOI	N: SI				Asn	Pro	Phe	Phe	Ser	
152 154 156	Met	(xi)	(A (B SEQ) LIE) CLO JENCE	BRARY DNE: E DES Leu	Y: G 106 SCRII	enBai 6392 PTIOI	N: SI		Glu	: 3: Asp	Asp	Pro	Phe		Ser	
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152 154 156 157 158	Met 1	(xi) Phe	(A (B SEQI Arg) LII) CLO UENCI Met Leu	BRARY ONE: E DES Leu 5	Y: Go 106 SCRII Asn	enBai 6392 PTIOI Ser	N: SI Ser	Phe Asn	Glu 10				Ile	15		
152 154 156 157 158 159	Met 1 Glu	(xi) Phe Ser	(A (B SEQUATG) LII) CLO JENCI Met Leu 20	BRARY DNE: E DES Leu 5 Ala	Y: G 106 SCRII Asn His	enBai 6392 PTIOI Ser Arg	N: SI Ser Glu	Phe Asn 25	Glu 10 Met	Asp Arg	Gln	Met	Ile 30	15 Arg	Ser	
152 154 156 157 158 159 160	Met 1 Glu	(xi) Phe Ser	(A (B SEQUATG Ile) LII) CLO JENCI Met Leu 20	BRARY DNE: E DES Leu 5 Ala	Y: G 106 SCRII Asn His	enBai 6392 PTIOI Ser Arg	N: SI Ser Glu Asp	Phe Asn 25	Glu 10 Met	Asp	Gln	Met Ser	Ile 30	15 Arg	Ser	
152 154 156 157 158 159 160 161	Met 1 Glu Phe	(xi) Phe Ser Ser	(A (B SEQUATG Ile Glu 35) LIM) CLO JENCE Met Leu 20 Pro	BRARY DNE: E DES Leu 5 Ala Phe	Y: GG 1066 SCRII Asn His	enBar 6392 PTIOI Ser Arg	N: SI Ser Glu Asp 40	Phe Asn 25 Leu	Glu 10 Met Leu	Asp Arg Ser	Gln Ile	Met Ser 45	Ile 30 Asp	15 Arg Gly	Ser Arg	
152 154 156 157 158 159 160 161 162	Met 1 Glu Phe	(xi) Phe Ser Ser	(A (B SEQUATG Ile Glu 35) LIM) CLO JENCE Met Leu 20 Pro	BRARY DNE: E DES Leu 5 Ala Phe	Y: GG 1066 SCRII Asn His	enBar 6392 PTION Ser Arg Arg	N: SI Ser Glu Asp 40	Phe Asn 25 Leu	Glu 10 Met Leu	Asp Arg	Gln Ile Gly	Met Ser 45	Ile 30 Asp	15 Arg Gly	Ser Arg	
152 154 156 157 158 159 160 161 162 163	Met 1 Glu Phe Gly	(xi) Phe Ser Ser Arg	(A (B SEQU Arg Ile Glu 35 Ala) LIM) CLO JENCH Met Leu 20 Pro	BRARY DNE: E DES Leu 5 Ala Phe Asn	Y: GG 106 SCRII Asn His Gly	enBai 6392 PTIOI Ser Arg Arg	N: SI Ser Glu Asp 40 Gly	Phe Asn 25 Leu His	Glu 10 Met Leu Asn	Asp Arg Ser Asp	Gln Ile Gly 60	Met Ser 45 Glu	Ile 30 Asp	15 Arg Gly Ser	Ser Arg Leu	
152 154 156 157 158 159 160 161 162 163 164	Met 1 Glu Phe Gly Thr	(xi) Phe Ser Ser Arg	(A (B SEQU Arg Ile Glu 35 Ala) LIM) CLO JENCH Met Leu 20 Pro	BRARY DNE: E DES Leu 5 Ala Phe Asn	Y: GG 106 SCRII Asn His Gly Arg	enBai 6392 PTIOI Ser Arg Arg	N: SI Ser Glu Asp 40 Gly	Phe Asn 25 Leu His	Glu 10 Met Leu Asn	Asp Arg Ser Asp Met	Gln Ile Gly 60	Met Ser 45 Glu	Ile 30 Asp	15 Arg Gly Ser	Ser Arg Leu Ser	
152 154 156 157 158 159 160 161 162 163 164 165	Met 1 Glu Phe Gly Thr	(xi) Phe Ser Ser Arg 50 His	(A (B SEQUATG Ile Glu 35 Ala) LIE) CLO UENCE Met Leu 20 Pro His Asp	BRARY DNE: E DES Leu 5 Ala Phe Asn	Y: GG 106 SCRII Asn His Gly Arg Ser 70	enBai 6392 PTIOI Ser Arg Arg Arg 55 Ser	Ser Glu Asp 40 Gly Phe	Phe Asn 25 Leu His	Glu 10 Met Leu Asn Thr	Asp Ser Asp Met 75	Gln Ile Gly 60 Asp	Met Ser 45 Glu Gln	Ile 30 Asp Asp	15 Arg Gly Ser Val	Ser Arg Leu Ser 80	
152 154 156 157 158 159 160 161 162 163 164 165 166	Met 1 Glu Phe Gly Thr	(xi) Phe Ser Ser Arg 50 His	(A (B SEQUATG Ile Glu 35 Ala) LIE) CLO UENCE Met Leu 20 Pro His Asp	BRARS DNE: DNE: Leu 5 Ala Phe Asn Val	Y: GG 106 SCRII Asn His Gly Arg Ser 70	enBai 6392 PTIOI Ser Arg Arg Arg 55 Ser	Ser Glu Asp 40 Gly Phe	Phe Asn 25 Leu His	Glu 10 Met Leu Asn Thr	Asp Ser Asp Met 75 Arg	Gln Ile Gly 60 Asp	Met Ser 45 Glu Gln Phe	Ile 30 Asp Asp Met	15 Arg Gly Ser Val Gln	Ser Arg Leu Ser 80 Leu	
152 154 156 157 158 159 160 161 162 163 164 165 166	Met 1 Glu Phe Gly Thr 65 Asn	(xi) Phe Ser Ser Arg 50 His	(A (B SEQUATG Ile Glu 35 Ala Thr) LIE) CLO UENCE Met Leu 20 Pro His Asp	BRARS DNE: DNE: Leu 5 Ala Phe Asn Val Tyr 85	Y: GG 1066 SCRII Asn His Gly Arg Ser 70 Met	enBan 6392 PTION Ser Arg Arg 55 Ser	N: SI Ser Glu Asp 40 Gly Phe Lys	Phe Asn 25 Leu His Gln Leu	Glu 10 Met Leu Asn Thr Glu 90	Asp Ser Asp Met 75 Arg	Gln Ile Gly 60 Asp	Met Ser 45 Glu Gln Phe	Ile 30 Asp Asp Met	15 Arg Gly Ser Val Gln 95	Ser Arg Leu Ser 80 Leu	
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152 154 156 157 158 159 160 161 162 163 164 165 166 167 168 169	Met 1 Glu Phe Gly Thr 65 Asn	(xi) Phe Ser Ser Arg 50 His Met Val	(A (B SEQUATG Ile Glu 35 Ala Thr Arg) LIE) CLO UENCE Met Leu 20 Pro His Asp Asn Pro 100	SRARSONE: DNE: DNE: Leu 5 Ala Phe Asn Val Tyr 85 Asn	Y: GG 106 SCRII Asn His Gly Arg Ser 70 Met	enBan 6392 PTION Ser Arg Arg 55 Ser Gln	N: SI Ser Glu Asp 40 Gly Phe Lys Ser	Phe Asn 25 Leu His Gln Leu Phe 105	Glu 10 Met Leu Asn Thr Glu 90 Cys	Asp Ser Asp Met 75 Arg	Gln Ile Gly 60 Asp Asn Ser	Met Ser 45 Glu Gln Phe Ser	Ile 30 Asp Asp Met Gly Val 110	15 Arg Gly Ser Val Gln 95 Met	Ser Arg Leu Ser 80 Leu Thr	
152 154 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170	Met 1 Glu Phe Gly Thr 65 Asn	(xi) Phe Ser Ser Arg 50 His Met Val	(A (B SEQUATG Ile Glu 35 Ala Thr Arg) LIE) CLO UENCE Met Leu 20 Pro His Asp Asn Pro 100	SRARSONE: DNE: DNE: Leu 5 Ala Phe Asn Val Tyr 85 Asn	Y: GG 106 SCRII Asn His Gly Arg Ser 70 Met	enBan 6392 PTION Ser Arg Arg 55 Ser Gln	N: SI Ser Glu Asp 40 Gly Phe Lys Ser	Phe Asn 25 Leu His Gln Leu Phe 105	Glu 10 Met Leu Asn Thr Glu 90 Cys	Asp Ser Asp Met 75 Arg	Gln Ile Gly 60 Asp Asn Ser	Met Ser 45 Glu Gln Phe Ser	Ile 30 Asp Asp Met Gly Val 110	15 Arg Gly Ser Val Gln 95 Met	Ser Arg Leu Ser 80 Leu Thr	
152 154 156 157 158 159 160 161 162 163 164 165 166 167 168 170 171	Met 1 Glu Phe Gly Thr 65 Asn Ser	(xi) Phe Ser Ser Arg 50 His Met Val Ser	(A (B SEQUATG Ile Glu 35 Ala Thr Arg Asp) LIE) CLO UENCE Met Leu 20 Pro His Asp Asn Pro 100 Ile	SRARS DNE: DNE: Leu 5 Ala Phe Asn Val Tyr 85 Asn Gly	Y: GG 1066 SCRII Asn His Gly Arg Ser 70 Met Gly Asp	enBan 6392 PTION Ser Arg Arg 55 Ser Gln His	N: SI Ser Glu Asp 40 Gly Phe Lys Ser Pro 120	Phe Asn 25 Leu His Gln Leu Phe 105 Pro	Glu 10 Met Leu Asn Thr Glu 90 Cys	Asp Ser Asp Met 75 Arg Ser Val	Gln Ile Gly 60 Asp Asn Ser Phe	Met Ser 45 Glu Gln Phe Ser Gln 125	Ile 30 Asp Asp Met Gly Val 110 Ala	15 Arg Gly Ser Val Gln 95 Met	Ser Arg Leu Ser 80 Leu Thr	
152 154 156 157 158 159 160 161 162 163 164 165 166 167 168 170 171	Met 1 Glu Phe Gly Thr 65 Asn Ser	(xi) Phe Ser Ser Arg 50 His Met Val Ser Thr	(A (B SEQUATG Ile Glu 35 Ala Thr Arg Asp) LIE) CLO UENCE Met Leu 20 Pro His Asp Asn Pro 100 Ile	SRARS DNE: DNE: Leu 5 Ala Phe Asn Val Tyr 85 Asn Gly	Y: GG 1066 SCRII Asn His Gly Arg Ser 70 Met Gly Asp	enBan 6392 PTION Ser Arg Arg 55 Ser Gln His	N: SI Ser Glu Asp 40 Gly Phe Lys Ser Pro 120	Phe Asn 25 Leu His Gln Leu Phe 105 Pro	Glu 10 Met Leu Asn Thr Glu 90 Cys	Asp Ser Asp Met 75 Arg	Gln Ile Gly 60 Asp Asn Ser Phe	Met Ser 45 Glu Gln Phe Ser Gln 125	Ile 30 Asp Asp Met Gly Val 110 Ala	15 Arg Gly Ser Val Gln 95 Met	Ser Arg Leu Ser 80 Leu Thr	
152 154 156 157 158 159 160 161 162 163 164 165 166 167 170 171 172 173	Met 1 Glu Phe Gly Thr 65 Asn Ser	(xi) Phe Ser Ser Arg 50 His Met Val Ser	(A (B SEQUATG Ile Glu 35 Ala Thr Arg Asp) LIE) CLO UENCE Met Leu 20 Pro His Asp Asn Pro 100 Ile	SRARS DNE: DNE: Leu 5 Ala Phe Asn Val Tyr 85 Asn Gly	Y: GG 1066 SCRII Asn His Gly Arg Ser 70 Met Gly Asp	enBan 6392 PTION Ser Arg Arg 55 Ser Gln His	N: SI Ser Glu Asp 40 Gly Phe Lys Ser Pro 120	Phe Asn 25 Leu His Gln Leu Phe 105 Pro	Glu 10 Met Leu Asn Thr Glu 90 Cys	Asp Ser Asp Met 75 Arg Ser Val	Gln Ile Gly 60 Asp Asn Ser Phe	Met Ser 45 Glu Gln Phe Ser Gln 125	Ile 30 Asp Asp Met Gly Val 110 Ala	15 Arg Gly Ser Val Gln 95 Met	Ser Arg Leu Ser 80 Leu Thr	
152 154 156 157 158 159 160 161 162 163 164 165 166 167 168 170 171	Met 1 Glu Phe Gly Thr 65 Asn Ser Tyr	(xi) Phe Ser Ser Arg 50 His Met Val Ser Thr 130	(A (B SEQUATG Ile Glu 35 Ala Thr Arg Asp Lys 115 Arg) LIE) CLO) CLO UENCE Met Leu 20 Pro His Asp Asn Pro 100 Ile Arg	SRARSONE: DNE: DNE: DNE: DNE: DNE: DNE: DNE: D	Y: GG 1066 SCRII Asn His Gly Arg Ser 70 Met Gly Asp	enBan 6392 PTION Ser Arg Arg 55 Ser Gln His Glu Gly 135	N: SI Ser Glu Asp 40 Gly Phe Lys Ser Pro 120 Gly	Phe Asn 25 Leu His Gln Leu Phe 105 Pro	Glu 10 Met Leu Asn Thr Glu 90 Cys Lys Lys	Asp Arg Ser Asp Met 75 Arg Ser Val Glu	Gln Ile Gly 60 Asp Asn Ser Phe Thr 140	Met Ser 45 Glu Gln Phe Ser Gln 125 Arg	Ile 30 Asp Asp Met Gly Val 110 Ala	15 Arg Gly Ser Val Gln 95 Met Ser	Ser Arg Leu Ser 80 Leu Thr Thr	
152 154 156 157 158 159 160 161 162 163 164 165 166 167 170 171 172 173	Met 1 Glu Phe Gly Thr 65 Asn Ser Tyr	(xi) Phe Ser Ser Arg 50 His Met Val Ser Thr 130	(A (B SEQUATG Ile Glu 35 Ala Thr Arg Asp Lys 115 Arg) LIE) CLO) CLO UENCE Met Leu 20 Pro His Asp Asn Pro 100 Ile Arg	SRARSONE: DNE: DNE: DNE: DNE: DNE: DNE: DNE: D	Y: GG 1066 SCRII Asn His Gly Arg Ser 70 Met Gly Asp	enBan 6392 PTION Ser Arg Arg 55 Ser Gln His Glu Gly 135	N: SI Ser Glu Asp 40 Gly Phe Lys Ser Pro 120 Gly	Phe Asn 25 Leu His Gln Leu Phe 105 Pro	Glu 10 Met Leu Asn Thr Glu 90 Cys Lys Lys	Asp Ser Asp Met 75 Arg Ser Val	Gln Ile Gly 60 Asp Asn Ser Phe Thr 140	Met Ser 45 Glu Gln Phe Ser Gln 125 Arg	Ile 30 Asp Asp Met Gly Val 110 Ala	15 Arg Gly Ser Val Gln 95 Met Ser	Ser Arg Leu Ser 80 Leu Thr Thr	
152 154 156 157 158 159 160 161 162 163 164 165 166 167 168 170 171 172 173 174	Met 1 Glu Phe Gly Thr 65 Asn Ser Tyr Gln Arg 145	(xi) Phe Ser Ser Arg 50 His Met Val Ser Thr 130 Asp	(A (B SEQUATG Ile Glu 35 Ala Thr Arg Asp Lys 115 Arg) LIE) CLO) CLO UENCE Met Leu 20 Pro His Asp Asn Pro 100 Ile Arg	SRARSONE: DNE: DNE: DNE: DNE: DNE: DNE: DNE: D	Y: GG 1066 SCRII Asn His Gly Arg Ser 70 Met Gly Asp Pro Gly 150	enBan 6392 PTION Ser Arg Arg 55 Ser Gln His Glu Gly 135 Leu	N: SI Ser Glu Asp 40 Gly Phe Lys Ser Pro 120 Gly Glu	Phe Asn 25 Leu His Gln Leu Phe 105 Pro Ile Lys	Glu 10 Met Leu Asn Thr Glu 90 Cys Lys Lys Met	Asp Arg Ser Asp Met 75 Arg Ser Val Glu Ala	Gln Ile Gly 60 Asp Asn Ser Phe Thr 140 Ile	Met Ser 45 Glu Gln Phe Ser Gln 125 Arg	Ile 30 Asp Asp Met Gly Val 110 Ala Lys His	15 Arg Gly Ser Val Gln 95 Met Ser Ala	Ser Arg Leu Ser 80 Leu Thr Thr Met Ile 160	

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              (D) TOPOLOGY: linear
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       (vii) IMMEDIATE SOURCE:
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              (A) LIBRARY: GenBank
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              (B) CLONE: 1066391
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                                                                            540
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214
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              (B) TYPE: amino acid
230
              (C) STRANDEDNESS: single
231
              (D) TOPOLOGY: linear
233
       (vii) IMMEDIATE SOURCE:
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	234 (A) LIBRARY: GenBank																
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237									EQ I								
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258	145					150				_	155			-	-	160	
259	Ala	His	Ile	Leu	Gln	Arg	Ser	Arg	Asn	His	Arg	Thr	Gly	Asp	Gln	Glu	
260					165			-		170	_		_	-	175		
261	Glu	Arg	Gln	Asp	Tyr	Ile	Asn	Leu	Asp	Glu	Ser	Glu	Ala	Ala	Ala	Phe	
262				180					185					190			
263	Asp	Asp	Glu	Trp	Arg	Arg	Glu	Thr	Ser	Arg	Phe	Arq	Gln	Gln	Arq	Pro	
264			195					200		-		_	205		_		
265	Leu	Glu	Phe	Arg	Arg	Leu	Glu	Ser	Ser	Gly	Ala	Gly	Gly	Arg	Arq	Ala	
266		210					215			-		220	-		- 3		
267	Glu	Gly	Pro	Pro	Arg	Leu	Ala	Ile	Gln	Gly	Pro	Glu	Asp	Ser	Pro	Ser	
268	225					230				-	235		-			240	
269	Arg	Gln	Ser	Arg	Arg	Tyr	Asp	Trp									
270					245	_	-	-									
272	(2) 1	NFOF	TAM	ON F	'OR S	SEQ]	D NO	: 6:	:								
274							ERIS										
275									pairs	;							
276							eic a										
277							SS: s		_e								
278							inea	_									
280	(V	rii)									•						
281	,	•						k									
282	(/																
284	(xi)						I: SF	EQ ID	NO:	6 :						
286												GAGG	асст	CA A	יפטטט	GGACC	60
287	AATC	CCCA	.CG T	TCCG	GGCC	G CC	ACCC	TGAC	COT	GCAC	CGT	ACCG	GGAA	GC 6	 ```````````````````````````````		120
288	GGAT	GGGC	CG C	TGAG	CCCG	A AT	'CGGG	CACT	ነ ርጥር	TGGA	GCC	CCCT	CCAC	CT C	מממת		180
289	TGTT	'CCGC	TT C	ATGA	GGGA	.С GT	GGAG	CCTC	: AGG	ATIC	רשת.	CTTC1	ירייה א	TIC C	7 MCC		240
											V		CIGH	0 0	127 CC		4 ·

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/023,929

DATE: 02/10/2002

TIME: 14:53:37

Input Set : N:\Crf3\RULE60\10023929.txt Output Set: N:\CRF3\02102002\J023929.raw

L:5 M:220 C: Keyword misspelled or invalid format, [(1) GENERAL INFORMATION:] L:10 M:220 C: Keyword misspelled or invalid format, [(ii) TITLE OF INVENTION:] L:30 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:] L:31 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]

L:35 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]

L:36 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]

 $L\!:\!77$ $M\!:\!341$ W: (46) "n" or "Xaa" used, for SEQ ID#:1 L:79 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1